

Remainder of River, Bay Cleanup Cost Pegged at Over \$300 Million

By Greg Swanson, Wisconsin Department of Natural Resources

Cleaning up the remaining portions of the Lower Fox River and Green Bay will cost more than \$300 million, according to a decision document finalized on June 30 by the Wisconsin Department of Natural Resources and U.S. Environmental Protection Agency.

The document, or record of decision, details the cleanup plan for the remaining two sections of the river and Green Bay itself. These areas are referred to as operable units. It is estimated that hydraulic dredging work from Little Rapids to the mouth of the river, known as OUs 3 and 4, will cost \$284 million. Another \$40 million will be spent on monitored natural recovery in the bay, or OU 5.

The portion of the river containing the greatest amount of PCB-contaminated sediment is DePere to Green Bay, or OU 4. Engineers estimate that this area contains about 58,620 pounds of PCBs in 8.4 million cubic yards of sediment. This cleanup plan provides for removal of 58,150 pounds of PCBs from OU 4 by dredging 5.8 million cubic yards of contaminated sediment. Included in this estimate is the contaminated sediment in Green Bay that contains PCB levels above 1 part per million.

Engineers estimate that OU 3, the section from Little Rapids to the DePere dam, contains about 2,750 pounds of PCBs in 3 million cubic yards of sediment. The final cleanup plan calls for hydraulic dredging of



EPA Regional Administrator Tom Skinner (left), Governor Jim Doyle (center) and DNR Secretary Scott Hassett announce the final cleanup plan for the remaining sections of the Lower Fox River and Green Bay.

Wisconsin, EPA Announce Second Cleanup Decision

By Greg Swanson, Wisconsin Department of Natural Resources

A \$324 million final cleanup plan for the remaining sections of the Lower Fox River and Green Bay was announced at a press conference on Monday, July 28 in Green Bay.

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586,800 cubic yards of contaminated sediment, which will remove nearly 2,444 pounds of PCBs. In addition, approximately 9,000 cubic yards of contaminated sediment containing 68 pounds of PCBs from an area known as Deposit DD in OU 2 next to the Little Rapids dam will be removed.

For Green Bay, OU 5, the selected cleanup method is monitored natural recovery. This involves the monitoring of natural processes to break down, dilute or bury the PCBs in the sediment to the point where they are no longer of concern. This option includes a 40-year monitoring program for PCB levels in water, sediment, fish and birds to effectively measure progress toward and achievement of cleanup in the bay.

Analysis by DNR and EPA shows that the cleanup of the Lower Fox River is expected to reduce the amount of PCBs moving into Green Bay from the river in the future by 98 percent. Also, the results of additional sampling done in Green Bay in 2002 showed PCB levels of under 1 ppm, except at the mouth of the river. That area, with the highest level of 30 ppm, will be dredged as part of the OU 4 cleanup.

The agencies believe that addressing continuing PCB discharges into Green Bay will be more cost effective at reducing long-term risks in Green Bay than would active cleanup in any portion of the bay.

This plan, combined with the cost of the cleanup for two portions of the upper river detailed in a January 2003 record of decision, brings the total cost of the cleanup of the Lower Fox River and Green Bay to just under \$400 million.

DNR Secretary Scott Hassett outlined the next steps in the process. "Our next steps will be to continue negotiations with the companies and work on reaching more agreements like those we announced previously this year with Georgia-Pacific and WTM 1," he said. "We'll also be starting pre-design sampling in Little Lake Butte des Morts and other plan design

work this summer. We want to be able to begin dredging in Little Lake Butte des Morts in 2004."

The records of decision for the Lower Fox River and Green Bay, the accompanying responsiveness summaries and other associated documents are available for review at the DNR and EPA Web sites, the Lower Fox River information repositories and in the site's administrative record. These places are listed on Page 7 of this edition of the *Fox River Current*.

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The well-attended press conference featured Governor Jim Doyle, Wisconsin Department of Natural Resources Secretary Scott Hassett and EPA Regional Administrator Tom Skinner. Doyle and Hassett noted that cleaning up the Lower Fox River is a top priority for not only DNR, but also for the state. "The Fox River has always been vitally important to Wisconsin and the Fox River Valley," said Doyle. "But, if we want to preserve this valuable resource for the future, we must repair the damage of 150 years of heavy wear and tear on the river and surrounding lands. And, we must clean up the PCBs that have contaminated the river."

Skinner added, "Together, these projects will remove about 90 percent of the PCBs in the river. That's a major step on the road to recovery for the Fox."

When the entire cleanup is completed, about 7.25 million cubic yards of contaminated sediment will have been removed. "Each cubic yard is the size of an apartment-sized refrigerator," Skinner said. "In many respects, this will be the biggest contaminated sediment cleanup project ever undertaken."

The signing of the final decision document, called the record of decision, means that DNR and EPA have worked through the range of choices and combination of options to identify a plan on how to clean up the Lower Fox River and Green Bay. It calls for dredging in the river and monitored natural recovery in the bay—a plan that DNR and EPA believe will be effective in the long term.

Health Department Reaches Out To Local Hispanic Communities

By Liz Evans, Wisconsin Department of Health and Family Services

Wisconsin, like other states, is struggling to reach its growing immigrant populations. U.S. Census Bureau reports the Hispanic population in Green Bay increased from 1,063 in 1990 to 7,294 in 2000.

In a continuing effort to reach this population with information on fish advisories along the Lower Fox River, Wisconsin Department of Health and Family Services is visiting English as a Second Language classes to spread the word.

Chuck Warzecha, who works on the Lower Fox River project for DHFS, recently spoke to two Green Bay ESL classes, sponsored by the Literacy Council of Brown County.

“We’ve found from research in recent years that awareness of Wisconsin’s fish consumption advisories is limited,” said Warzecha. “Add a language barrier to the equation and those we happen to reach are the exceptions. Of the two classes I attended, only one person had heard anything about the fish advisories for the Fox River.”

Warzecha, who doesn’t speak Spanish, has been explaining fish consumption advisories to Wisconsin residents for years, but said he didn’t realize just how complex they were until he had to work through the translation process. He said the students and instructors were very interested. “I met some wonderful people, both instructors and students, during my visits.”

During his visits, he tried to convey this simple message — eat smaller, younger fish. Warzecha explained that many of the Great Lakes states, including Wisconsin, started using a tiered advisory about 10 years ago. It suggests eating different amounts of various sizes and types of fish based on how much contamination they contain. While this process more accurately balances the health message with the level of risk, the message changed from “eat or do not eat,”



Chuck Warzecha of DHFS speaks to an English as a Second Language class in Green Bay.

to as many as 50 different options for the variety and sizes of fish in the river and Green Bay.

Fish consumption advisories are further complicated by different contaminants found in fish. PCBs are mainly found in the fat and skin, however, mercury is found throughout the fish. Warzecha said he opted for the simpler message. “One question I faced going into the classes,” he added, “was how much information to try to give students about different chemical contaminants.”

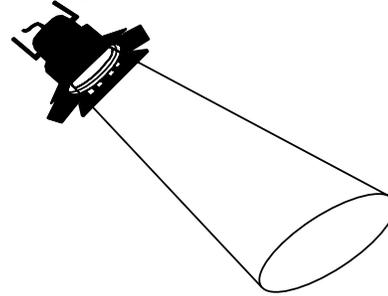
After an apparent first success, Warzecha said he is planning to visit more classes. “ESL classes are a new venue for us, and so far this looks like an effective way to communicate with the community,” he said. “In the future, we may also demonstrate fish cleaning methods.”

DHFS, along with local health departments in the Fox River Valley, intends to step up its efforts to reach immigrant populations, according to Warzecha. “We are very grateful to the Literacy Council for the work it does, and we recognize that partnering with local

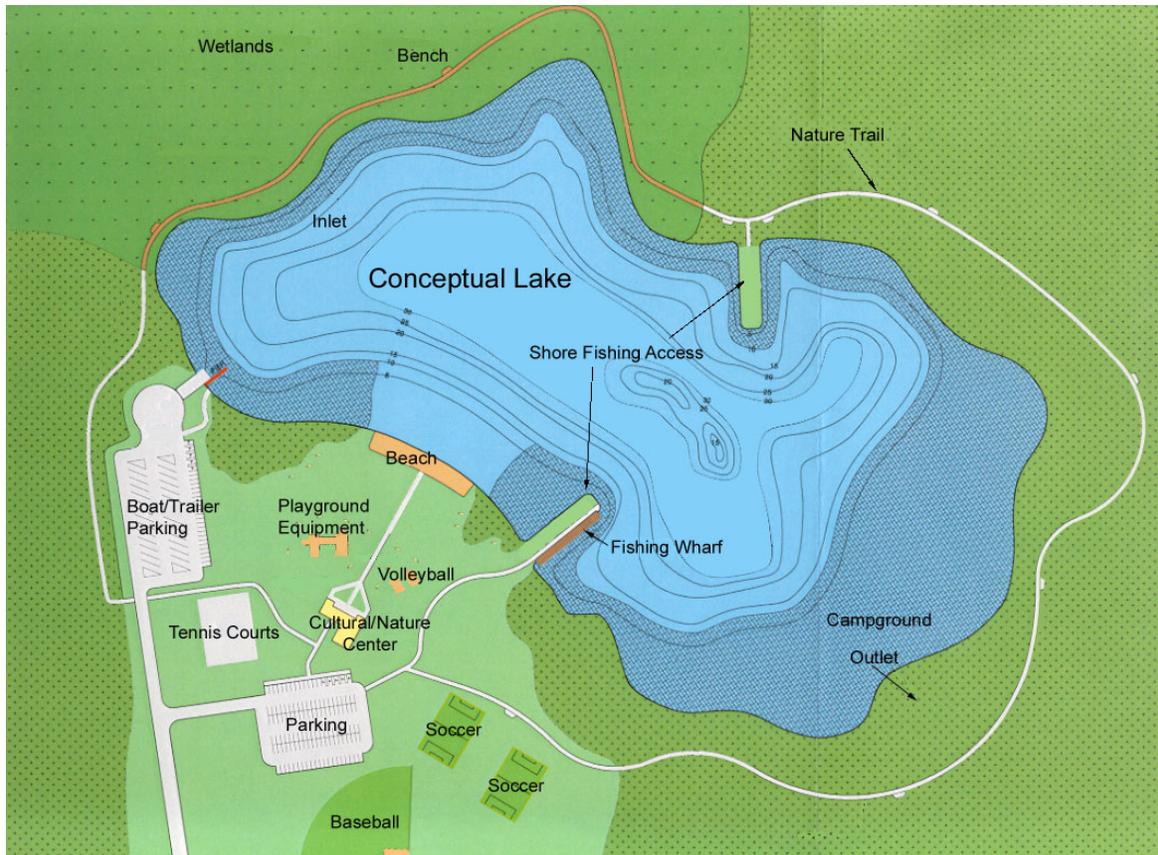
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The Fox River Current is featuring promising natural resource damage assessment projects in and near the Lower Fox River.

Spotlight On: Oneida Lake



By Tom Nelson, Oneida Tribe of Indians of Wisconsin



A conceptual drawing of Oneida Lake also includes a nature trail, soccer fields, tennis courts, playground and picnic area.

A project is in the works to create a self-sustaining lake ecosystem that will provide the Oneida tribe with a clean source of fish for the next seven generations. While the design team will create a lake management plan, it is expected that the lake will eventually evolve into a balanced ecosystem with its own character. Once the construction is complete, it will take several years for the lake to mature into a fully functional ecosystem.

Oneida tribal members are generally thrilled at the thought of having a lake on the reservation. “The

idea and concept behind the plan to create a new lake to provide the Oneida members with a place to harvest and enjoy natural resources is an absolutely great opportunity,” said Natural Resources Director Shad Webster.

It will take one to two years to design the 35 to 40-acre lake with construction set to start in 2005. With two to three years planned for construction, the lake should be usable for limited activity by the 2008 Oneida fishing season.

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“The community members have been pursuing a lake for 20 plus years,” according to Laura Manthe, Oneida tribal member and environmental resources board coordinator. “They know that the fish in Duck Creek (a major reservation waterway) are not safe to eat and are anxious to have a source of clean fish on the reservation.”

To get that source underway, the tribe has hired a contractor to assist with the lake’s design. Over the next few months, the Oneida Environmental Quality Department and the contractor will hold public meetings on the reservation to answer questions about the lake pertaining to its uses and location. While the tribe expects the lake to be multi purpose, the main goal is still to replace the cultural fishing lost due to the release of PCBs into the environment.

“Having a place close by to take my kids fishing and to eat those fish is important because fishing has always been part of what it means to be an Oneida,” said Tribal Member Sylvia Cornelius-Waupoose. “It is a major part of the social culture that I grew up with.”

Tribal Member Dale Cornelius agrees. “Having a place on the reservation to fish means a lot to me,” he said. “I try to follow the traditional Oneida diet and fish is a big part of it. For now, I have to travel several hours to find a place where I can fish and feel comfortable keeping them.”

Oneida community needs will be the focus of the lake’s design, however, science, neighboring community plans and legal constraints need to be incorporated into the final design. Webster added, “If done correctly, this lake could be a showcase project.”

Funding for the project will come from two legal agreements between the Fox River/Green Bay Natural Resource Trustee Council and three of the local paper companies. The tribe will be able to use \$300,000 from an agreement with the Fort James Operating Co. Additional funds will also be available from the 2001 agreement with Appleton Papers, Inc. and NCR Corp.

Webster concluded, “The act of the companies acknowledging their wrong doing and relishing the relationship between a culture and the natural resources is a step in the right direction.”

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organizations gives us our best opportunity for success,” he added.

DHFS wants to continue working with ESL classes in the area and is also looking for other opportunities to increase awareness in fish consumption advisories. To help increase that awareness or to arrange for a DHFS presentation on fish advisories, contact Liz Evans at (608) 266-3393 or at evanse@dhfs.state.wi.us.

**Out and About...**

By Susan Pastor, U.S. Environmental Protection Agency

The Fox River Intergovernmental Partnership, made up of U.S. Environmental Protection Agency, Wisconsin Department of Natural Resources, U.S. Fish and Wildlife Service, National Oceanic and Atmospheric Administration, Oneida Tribe of Indians of Wisconsin and Menominee Indian Tribe of Wisconsin, regularly provides speakers to organizations in the Fox Valley area. The following partners recently made presentations:

June

- ◆ *Doug Cox and Jennifer Hill-Kelly*, Menominee: Native American Journalists Association National Conference radio program (Native American Calling), Oneida; general Lower Fox River update.

July

- ◆ *Greg Hill and George Boronow*, DNR and *Tom Nelson*, Oneida: Fox Valley Region Community Foundation, Menasha; general natural resource damage assessment and NRDA projects.
- ◆ *Jim Hahnenberg*, EPA: Loyola University law class, Chicago; general Lower Fox River update.

August

- ◆ *Ed Lynch and Ron Kazmierczak*, DNR: Georgia-Pacific Community Advisory Council, Green Bay; Lower Fox River cleanup and record of decision.

Profile On . . . Milt Clark

In work and play, it's all about the environment

By Susan Pastor, U.S. Environmental Protection Agency

Milt Clark is a “science guy.” From his days at the University of Kansas and through his 24 years as a senior health and science advisor with U.S. Environmental Protection Agency, Clark has been entrenched in science. He earned a bachelor’s degree in chemistry and biochemistry in 1972, skipped the master’s degree program and started working on his doctorate.

The Kansas native went on to earn his Ph.D. in environmental science in 1979. This degree program, which was new at the time, emphasized toxicology, health affects of chemicals, and engineering solutions to environmental problems. “Universities in the United States got money from EPA back then to develop these types of programs,” he explained.

Prior to accepting a full-time position with EPA in 1988, Clark, 54, worked part time for EPA and taught environmental science part time for the University of Illinois School of Public Health. He is still affiliated with the school as an adjunct faculty member. “My first year there (at the university), I received a Teacher of the Year award which was really nice,” he said. “I tried to make the information interesting and understandable. I was very passionate about environmental problems and how to solve them.”

Clark, a resident of west suburban Chicago, prides himself in being able to make technical information interesting and understandable to citizens near EPA hazardous waste sites. An active member of the Lower Fox River Team, Clark counsels communities as well as coworkers. “The most challenging part of this project was to ensure that the public had complete information on the health effects of PCBs,” he continued. “I attend the public meetings to explain our findings and help educate people on health risks of chemicals.”

Explaining and educating is something Clark enjoys. In addition to the Lower Fox River, Clark worked on the Sheboygan (Wisconsin) and Kalamazoo (Michi-



Milt Clark

gan) Rivers and Waukegan (Illinois) Harbor. “At the moment, there tends to be greater involvement in PCB sites because they are the biggest risk to citizens,” he said. “I try to get involved in sites with technical challenges where there are communication gaps between EPA and citizens.”

Citizens aren’t the only ones who benefit from his experience. EPA technical staff and management seek him out for assistance and advice, according to Clark. On a typical day, he can be found poring over scientific information, preparing risk analyses of chemicals in fish, overseeing contractors who develop risk analyses, and coordinating with many state and federal agencies on information regarding how much and what types of fish people might eat in a local situation.

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“The amount of technical detail here (the Lower Fox River) exceeds most projects,” he said. “This is due to factors of understanding PCB behavior over time, how they get into the fish, and how cleanup efforts will reduce PCBs in fish and wildlife. There is quite a bit of science that is needed to understand and document these processes to permit effective decision making.”

Clark has a proven track record of understanding and documenting scientific processes. Prior to working on the Lower Fox River project, he worked with the Great Lakes state, health and environmental agencies to establish a uniform sport fish consumption advisory for all of the Great Lakes states. “That gave us a better system to protect public health while reducing public confusion,” he stated. “That is what we are shooting for at the Fox River.”

Other EPA team efforts in which Clark was involved include a dioxin pollution project in Midland, Mich. that resulted in Dow Chemical cleaning up its facility and reducing fish contamination. He also worked on another large cleanup effort in which the outdoor pesticide, methyl parathion, was illegally used in homes in Chicago, Detroit and west of Cleveland. “Nationally, we investigated 4,000 homes and cleaned up 1,000,” he recalled. “We had to develop criteria to relocate people and decontaminate properties.”

Even when Clark is sailing his 34-foot sailboat “Tenacity,” he thinks about the environment. He has partici-

pated in the 333-mile Chicago to Mackinaw (Michigan) race and has cruised in upper Lake Michigan to the Beaver Island Group. “It’s cruising in the Great Lakes, like to Beaver Island, the north channel and in Lake Huron, that gives me a profound appreciation for our environment,” he said. “I feel the need to protect it.”

How did a landlocked Kansas native and KU student get involved in sailing? “I started sailing in grad school on small inland lakes in Kansas,” he explained. “I did it as something different from graduate science studies.”

So, Clark will do his part to protect and enjoy the environment on and off the job. “Sailing gets you close to nature,” he added. “The wind, water and sun can be very magical.”

As for linking sailing to his job, Clark concluded, “I think I owe the Fox River Team some sail outings for the hard work everyone put in on this project over the past five years.”

Now that it is in print, we can finally hold him to it....

Check out these Web sites:

<http://www.dnr.state.wi.us/org/water/wm/lowerfox/>

<http://www.epa.gov/region5/sites/foxriver/>

<http://www.fws.gov/r9dec/nrdar/nrdamain.html>

<http://www.fws.gov/r3pao/nrda/>

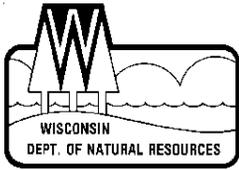
**Information Available at Local Libraries**

The Intergovernmental Partners invite the public to review technical reports, fact sheets and other documents related to the Lower Fox River cleanup at information repositories set up in the reference sections of the following local libraries. Information repositories at the public libraries in DePere, Kaukauna, Little Chute, Neenah and Wrightstown have been discontinued. However, binders containing fact sheets will be mailed to and maintained at these locations as well as at the repositories listed below.

- **Appleton Public Library**, 225 N. Oneida St., Appleton, Wis.; (920) 832-6170
- **Brown County Library**, 515 Pine St., Green Bay, Wis.; (920) 448-4381, Ext. 394
- **Door County Library**, 107 S. Fourth Ave., Sturgeon Bay, Wis.; (920) 743-6578
- **Oneida Community Library**, 201 Elm St., Oneida, Wis.; (920) 869-2210
- **Oshkosh Public Library**, 106 Washington Ave., Oshkosh, Wis.; (920) 236-5200



An administrative record, which contains detailed information upon which the selection of the final site cleanup plan will be based, is also available for review at two DNR offices: 801 E. Walnut St., Green Bay, Wis. and 101 S. Webster St., 3rd Floor, Madison, Wis. An administrative record is also available at the EPA Record Center, 77 W. Jackson Blvd., 7th Floor, Chicago, Ill.



Prepared by the Fox River Intergovernmental Partnership: Wisconsin Department of Natural Resources, U.S. Environmental Protection Agency, U.S. Fish and Wildlife Service, Menominee Indian Tribe of Wisconsin, Oneida Tribe of Indians of Wisconsin, and National Oceanic and Atmospheric Administration. Supporting agencies include Wisconsin Department of Health and Family Services, U.S. Agency for Toxic Substances and Disease Registry, and U.S. Army Corps of Engineers.

Disclaimer: The opinions expressed in these articles are solely those of the authors and are not necessarily shared by all members of the Fox River Intergovernmental Partnership.

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Office of Public Affairs (P-19J)
 United States Environmental Protection Agency
 Region 5
 77 W. Jackson Blvd.
 Chicago, IL 60604-3590